

Work Order ID 55032

January 5, 2010 1:21:36 PM



Page 1

Item ID: D3407-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Tow Ring

Start Date: 05/01/2010 Start Qty: 12.00

Cust Item ID:

Required Date: 15/01/2010 Req'd Qty: 12.00

Customer:

Reference:

Ruin Start



Approvals:

Process Plan:

Date: 10-1-05

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3407	Rev E

100 0.00



Large Fab

Large Fab

Memo

0.00

Large Fab

Weld D3407-1/-5 using welding rod TIG174 as per Dwg D3407 & QSI 004
A/R TIG174 ROD Batch: M 102576

SP 10-01-07

110 0.00



QC9- Inspect visual per QSI004- Fusion Welds

QC

Memo

0.00

Quality Control

12x 10/01/08

120 0.00



QC5- Inspect part completeness to step on W/O

QC

Memo

0.00

Quality Control

⇒ 810608

12x

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 55032

January 5, 2010 1:21:36 PM



Page 2

Item ID: D3407-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Tow Ring

Start Date: 05/01/2010 Start Qty: 12.00

Cust Item ID:

Required Date: 15/01/2010 Req'd Qty: 12.00

Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

7/11/13/70 10-01-12

(x12) 0

Powder Coating

Mask Threaded Section

START TIME: 2:30pm

OVEN TEMPERATURE: 400°F

FINISH TIME: 3:00pm

140

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

10-01-12

(12) 0

Quality Control

150

Identify as per dwg & Stock Location: 464

0.00



Packaging

Memo

0.00

10-1-13 (12x) SP

Packaging

W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

Work Order ID 55032

Page 3

January 5, 2010 1:21:36 PM

Item ID: D3407-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Tow Ring

Start Date: 05/01/2010 Start Qty: 12.00



Cust Item ID:

Required Date: 15/01/2010 Req'd Qty: 12.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/01/14

MF

10-1-14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 1:21:41 PM

Page 1

Work Order ID: 55032

Parent Item: D3407-041

Parent Item Name: Tow Ring


Start Date: 05/01/2010

Required Date: 15/01/2010

Start Qty: 12.00

Required Qty: 12.00

Comments:

Component ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3407-1		Manufactured	No			100	Each	32.0000	12.0000			
 Stem												

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST

32

52317

10

52902

22

D3407-5

Manufactured No

100

Each

15.0000

12.0000

Ring

Warehouse

Location

Loc Qty

Loc Code

Main Warehouse

ST

15

53883

15

✓ 10x.
2x.

✓ 12x.

SP 10.01.07.

SP 10.01.07.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

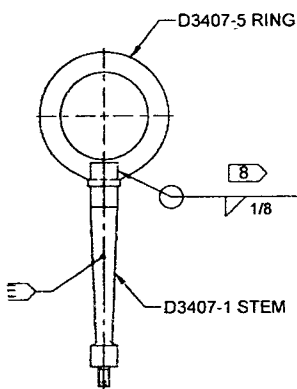
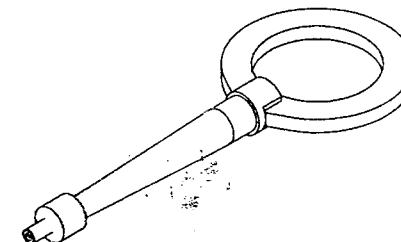
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

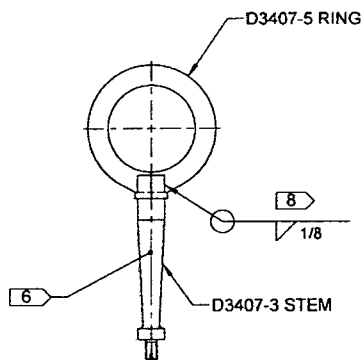
NOTE: Date & initial all entries

QTY -041	QTY -043	QTY -045	PART NUMBER	DESCRIPTION
X			D3407-041	TOW RING
	X		D3407-043	TOW RING
		X	D3407-045	TOW RING
1			D3407-1	STEM
	1		D3407-3	STEM
1	1	1	D3407-5	RING
		1	D3407-7	STEM

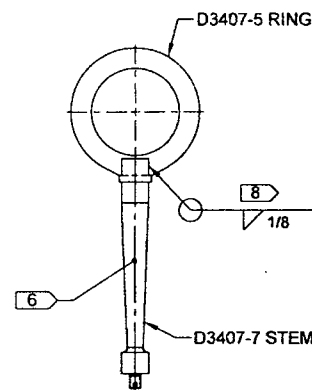
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 35032
PP 10-1-05



D3407-041 TOW RING



D3407-043 TOW RING



D3407-045 TOW RING

RELEASED

E	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY	PH	08.07.23
D	D3407-1/3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
C	-1/3 LONGER FOR FIT W/WASHER	CP	05.09.09
B	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.07.23		

DART AEROSPACE USA, INC.
PORT HADLOCK, WA

DRAWING NO. **D3407** REV. E
SHEET 1 OF 5
TITLE **TOW RING** SCALE NTS

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WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

TES:
MATERIAL: N/A
FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
UNITS: INCHES UNLESS OTHERWISE NOTED
BREAK SHARP EDGES: N/A
IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
VELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

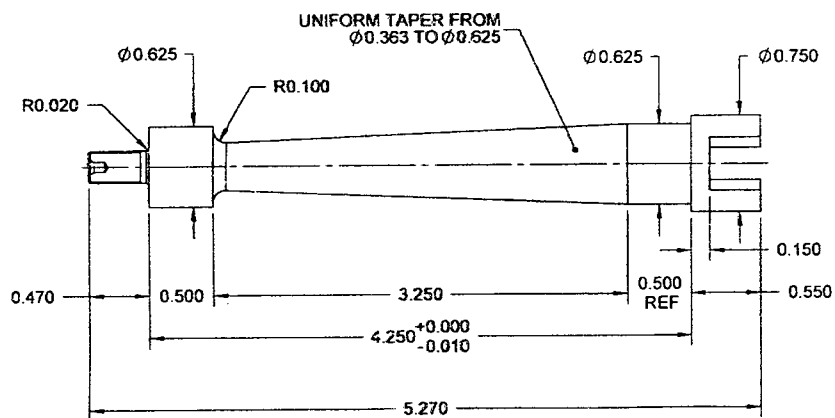
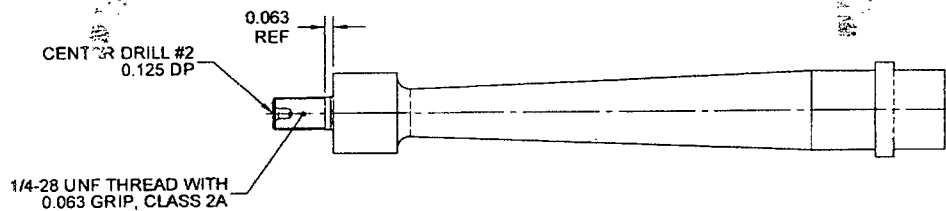
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

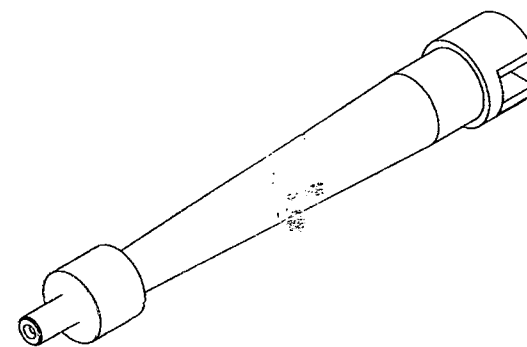
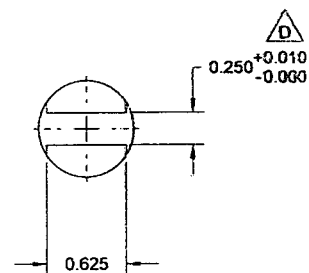
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3407-1 STEM



NOTES:

- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.33 lbs

RELEASED

DESIGN	JP	DART AEROSPACE USA, INC.	
DRAWN	JP	PORT HADLOCK, WA	
CHECKED	JP	DRAWING NO.	REV. E
MFG. APPR.	JP	D3407	SHEET 2 OF 5
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	TOW RING	NTS
DATE	08.07.23	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC.	
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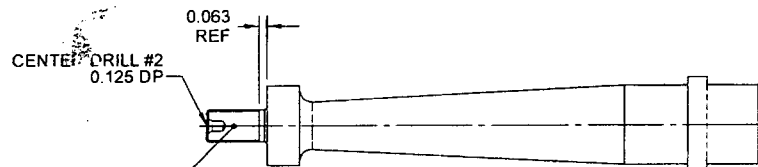
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

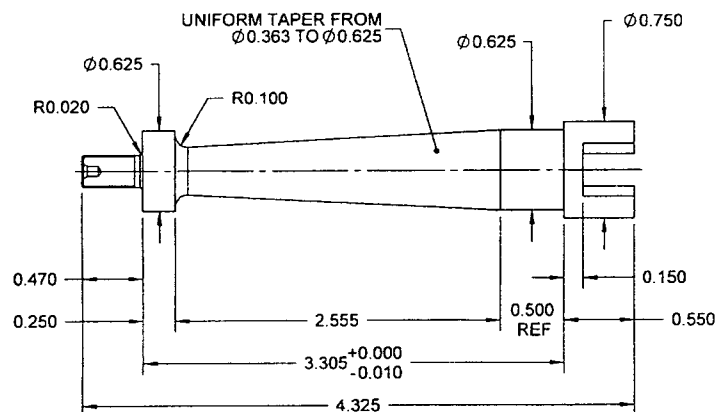
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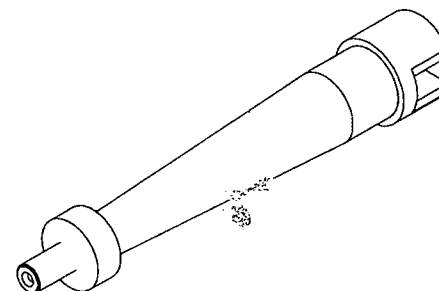
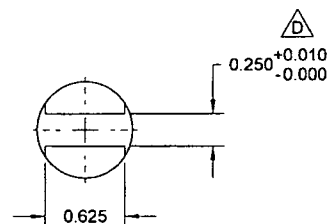
NOTE: Date & initial all entries



1/4-28 UNF THREAD WITH
0.063 GRIP, CLASS 2A



D3407-3 STEM



RELEASED
08-08-01 R/P

NOTES:
 MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
 FINISH: NONE
 TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 UNITS: INCHES UNLESS OTHERWISE NOTED
 BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
 IDENTIFICATION: N/A
 WEIGHT: 0.27 lbs

DESIGN		DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		TOW RING	NTS
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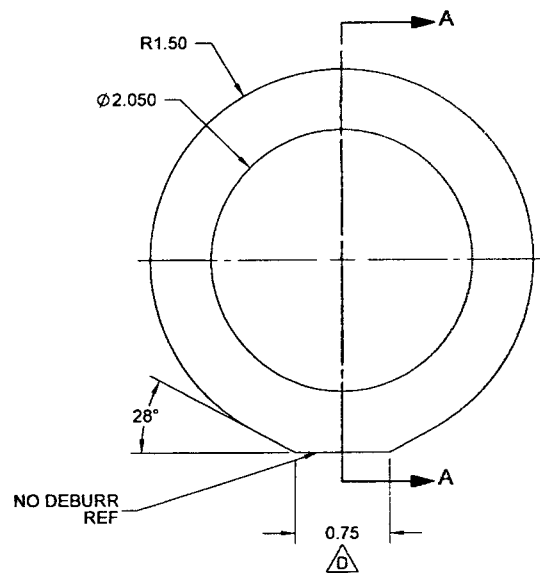
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

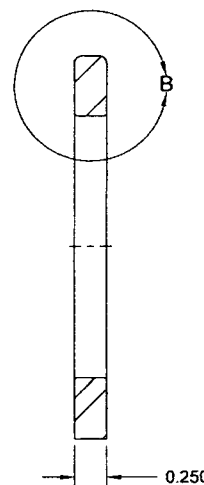
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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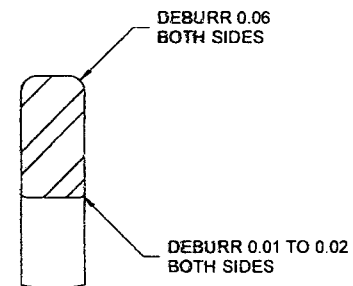
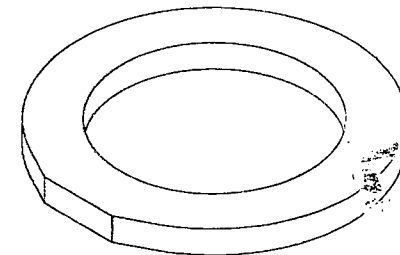
NOTE: Date & initial all entries



D3407-5 RING



SECTION A-A



**DETAIL B
SCALE 2X**

RELEASED
08-07-23

NOTES:
MATERIAL: 17-4 PH SS BAR PER AMS 5604/5643 (REF. DART SPEC M17-4-B)
FINISH: NONE
TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
UNITS: INCHES UNLESS OTHERWISE NOTED
BREAK SHARP EDGES: N/A
IDENTIFICATION: N/A
WEIGHT: 0.27 lbs

4055032

DESIGN	4055032	DART AEROSPACE USA, INC.	
DRAWN	PER	PORT HADLOCK, VA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		TOW RING	NTS
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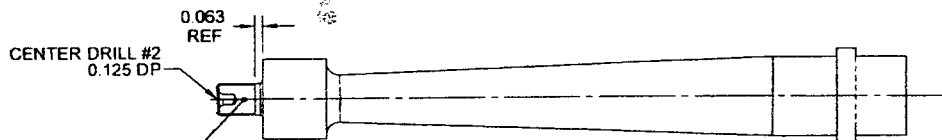
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

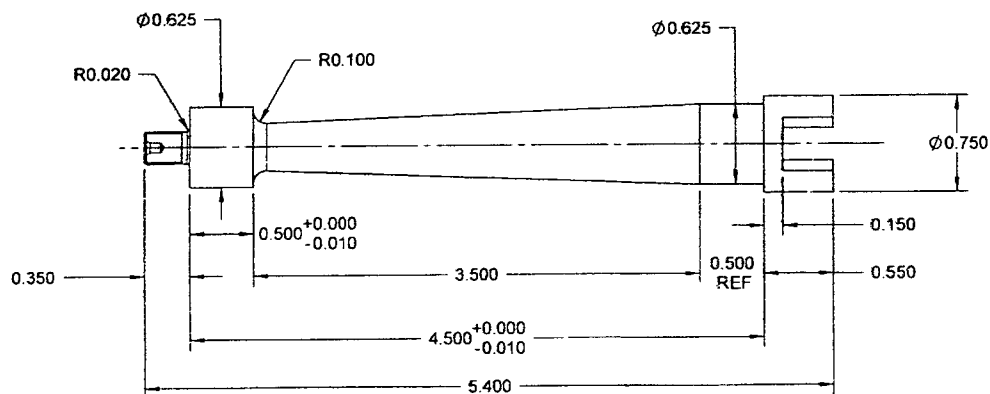
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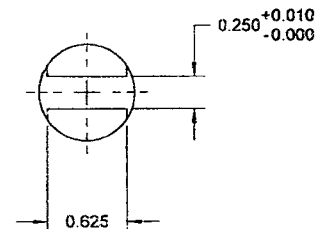
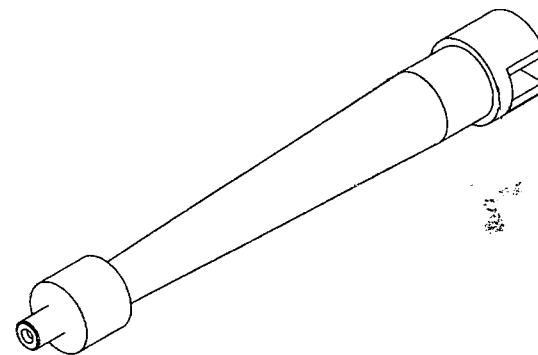
NOTE: Date & initial all entries



1/4-28 UNF THREAD WITH
0.063 GRIP, CLASS 2A



D3407-7 STEM



RELEASED

NOTES:
MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
FINISH: NONE
TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
UNITS: INCHES UNLESS OTHERWISE NOTED
BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
IDENTIFICATION: N/A
WEIGHT: 0.34 lbs

DESIGN	AJS	DART AEROSPACE USA, INC.	
DRAWN	PT	PORT HADLOCK, WA	
CHECKED		DRAWING NO. D3407	REV. E
MFG. APPR.			SHEET 5 OF 5
APPROVED		TITLE TOW RING	SCALE
DE APPR.			NTS
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